Conference Abstract

Evaluation of Substrates for SAV Nursery Growth Potential

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Type Poster

Session SCI-127 - Submerged Aquatic Habitats

Time & Place Monday, All Day in Poster Hall , Tuesday, All Day in Poster Hall
(subject to change)

This research focuses on the use of substrates to optimize submerged aquatic vegetation (SAV) growth in a controlled (greenhouse) environment. Every season, natural resource managers, non-profit, school and volunteer groups propagate thousands of stems of SAV for restoration projects in the Chesapeake Bay, its tributaries and Coastal Bays. Preparations vary for the plant, but typically consist of a mix of low nutrient topsoil mixed with sand. Establishing mixes that are both cost effective and produce the most healthy and vigorous plants is one way to ensure more successful restorations as well as plants that are healthier for the nursery industry. Two different substrates were tested: sand and oyster shell. Over an 8 week period, Potamogeton perfoliatus in the oyster shell treatment produced above surface shoot length that was more than twice the growth of the sand (pr>F) 0.007228. The plants in the oyster treatment also exhibited flowers, while the sand treatment did not. More research is planned to further illuminate the optimization for SAV health in greenhouse mesocosms and in field work, to perhaps increase our understanding of SAV ecology in the Bay.